

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Former Nextel Communications, Inc.)	WT Docket No. 06-169
Upper 700 MHz Guard Band Licenses)	
and Revisions to Part 27 of the)	
Commission's Rules)	
)	
Development of Operational, Technical)	WT Docket No. 96-86
and Spectrum Requirements for Meeting)	
Federal, State and Local Public Safety)	
Communications Requirements Through)	
the Year 2010)	

COMMENTS OF VERIZON WIRELESS

Verizon Wireless submits these comments in response to the Federal Communications Commission's ("Commission") *Guard Band NPRM*, which seeks comment on possible changes to the Part 27 rules applicable to existing and prospective Guard Band licensees in the 746-806 MHz ("Upper 700 MHz") band.¹ In conducting its review, the Commission should ensure that its primary goals in this proceeding are met. First, no changes should be made to the Guard Band rules if they jeopardize the Commission's ability to conduct the auction of recovered television spectrum in accordance with Congress' mandate. Second, no changes should be made if they risk increased interference to public safety or commercial licensees in the Upper 700 MHz band, or otherwise threaten to undermine the ability of those licensees to make efficient and effective use of their allotted spectrum.

¹ *In the Matter of Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules*, WT Docket No. 06-169, *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010*, WT Docket No. 96-86, Notice of Proposed Rule Making, FCC 06-133 ("*Guard Band NPRM*" or "*NPRM*"), released September 8, 2006.

I. INTRODUCTION AND SUMMARY

Verizon Wireless generally supports rules that provide greater technical, operational and regulatory flexibility to licensees. Such rules generally facilitate the more rapid introduction of new technologies and services and lead to more efficient and effective use of the radiofrequency spectrum. However, such flexibility can frustrate these important goals if it results in increased interference to licensees. In establishing rules for various wireless services, the Commission has recognized this potential problem, and has strived to afford the maximum flexibility possible while establishing only those restrictions necessary to prevent harmful interference.²

In establishing its 700 MHz rules, the Commission's goal was to protect public safety systems operating in the band from harmful interference, while also providing sufficient flexibility to maintain the viability of the commercial spectrum.³ Accordingly, it established operational and technical rules for the 700 MHz band that would ensure these objectives are achieved. Moreover, the Commission set aside a portion of the commercial spectrum (6 MHz) and designated it as "Guard Band" to separate public safety and commercial operations. Consistent with its flexible use policies, the Commission established rules that permit the Guard Bands to be used for commercial applications so long as such uses do not cause harmful interference to public safety licensees. To minimize the potential for interference, it adopted a

² *In the Matter of Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Report and Order, 18 FCC Rcd 25162 (2003) ("AWS Order"), rel. Nov. 25, 2003; *In the Matter of Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS")*, GN Docket No. 96-228, Report and Order, FCC 97-50 ("WCS Order"), rel. Feb. 19, 1997; *In the Matter of Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands*, WT Docket No. 02-8, FCC 02-152, rel. May 24, 2002; Report of Spectrum Policy Task Force, ET Docket No. 02-135, rel. November 2002.

³ *In the Matter of Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules*, WT Docket No. 99-168, First Report and Order, 15 FCC Rcd 476 (2000) ("First Report and Order"), rel. January 7, 2000, at ¶ 104.

“package of interference protections modeled on the interference standards within the 700 MHz public safety spectrum.”⁴ This included service, operational, and technical rules for the Guard Bands that would minimize the threat of interference.⁵

The *Guard Band NPRM* seeks comment on potential changes to the Commission’s rules that, according to the *NPRM*, may provide greater technical, operational, and regulatory flexibility to licensees in the Guard Bands, while maintaining adequate protection for public safety operations in adjacent spectrum.⁶ Verizon Wireless appreciates the Commission’s desire to promote greater flexibility in spectrum use wherever possible. However, many of the potential rule changes on which the *NPRM* seeks comment would upset the balance that the Commission established when it adopted its 700 MHz and Guard Band rules. At that time, the Commission determined that the Guard Bands “are necessary to protect public safety users from interference.”⁷ There is nothing in the record to support a finding that these interference concerns have changed or that the Guard Bands, with their operational and technical limitations, are not still needed. The Commission should not change its Guard Band rules unless it can be clearly demonstrated that such changes will not result in harmful interference to public safety or other licensees.

⁴ *In the Matter of Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000) (“*Second Report and Order*”), released March 9, 2000, at ¶ 2.

⁵ The Commission established power and out-of-band emission requirements to reduce the potential for harmful interference, as well as a prohibition on the deployment of cellular architectures that would be incompatible with expected public safety deployments. See 47 CFR §§ 27.2(a), 27.50(b), and 27.53(d).

⁶ *Guard Band NPRM* at ¶ 3.

⁷ *First Report and Order* at ¶ 3 (emphasis added).

II. ANY CHANGES TO THE GUARD BAND RULES SHOULD NOT JEOPARDIZE THE SUCCESSFUL COMPLETION OF THE 700 MHz AUCTION.

Even if the Commission ultimately concludes that certain changes to its Guard Band rules can be made without risking harmful interference, it must ensure that such changes do not impair meeting its statutory obligation to auction 60 MHz of recovered television spectrum at 700 MHz, including 30 MHz in the Upper 700 MHz band. The Commission is required to begin the auction by January 28, 2008 and to deposit the proceeds in the Digital Television Transition and Public Safety Fund no later than June 30, 2008.⁸ We concur with the Commission that any potential changes to the Guard Band rules must not jeopardize the Commission's ability to meet these statutory requirements.⁹

In enacting the Digital Television Transition and Public Safety provisions of the Deficit Reduction Act of 2005, Congress made clear its plan to accelerate the transition of existing television broadcasting services to digital technology and its intent to use the proceeds from the auction of the commercial spectrum to implement its plan. The DTV transition will not only benefit the millions of television viewers that will have access to the enhanced entertainment services afforded by digital television technology, but it is critical to the deployment of interoperable emergency communications systems for the nation's first responders that will be constructed in the spectrum currently used for television.

Verizon Wireless previously noted how substantial changes to the rules applicable to the 700 MHz band could jeopardize the successful implementation of Congress' plan.¹⁰ While the

⁸ Deficit Reduction Act of 2005, Pub. L. No. 109-171, 120 Stat. 4 ("DRA"), § 3003(a), 3004.

⁹ *Guard Band NPRM* at ¶ 5.

¹⁰ Comments of Verizon Wireless, *In the Matter of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket No. 06-150, Notice of Proposed Rule Making, Fourth Further Notice of Proposed Rule Making, and Second Further Notice of Proposed Rule Making, ("700 MHz Further NPRM"), filed Sep. 29, 2006.

Commission might conclude that some changes to the Guard Band rules are warranted, it should not make any changes that could undermine Congress' objectives. For example, any changes to the Guard Band rules should not also reconfigure the Upper 700 MHz band in a manner that would substantially change the 30 MHz of commercial spectrum that is planned for auction.¹¹

III. THE COMMISSION SHOULD NOT ADOPT RULES THAT RISK INCREASED INTERFERENCE TO PUBLIC SAFETY AND OTHER LICENSEES.

In establishing its 700 MHz and Guard Band rules, the Commission recognized its statutory obligation to prevent harmful interference to public safety and other licensees and its limitation in establishing more flexible rules that might frustrate those objectives.¹² Section 303(y) of the Communications Act authorizes the Commission to allocate spectrum so as to provide flexibility of use only if an affirmative determination is made that such flexibility: (1) is consistent with international agreements; (2) would be in the public interest; (3) would not deter investment in communications services or systems, or technology development; and (4) would not result in harmful interference among users.¹³ In addition, Section 337(d)(4) specifically requires the Commission to establish rules for use of the Upper 700 MHz band that ensure public safety licensees are not subject to harmful interference.¹⁴

¹¹ See Comments of Access Spectrum, LLC, Columbia Capital III, LLC, Pegasus Communications Corporation and Telcom Ventures, LLC, in response to *700 MHz Further NPRM*, filed Sep. 29, 2006. While Access Spectrum proposes major changes to the commercial 700 MHz spectrum band plan that could impede the Commission's ability to fulfill Congress' mandate, it also proposes reconfiguring the public safety spectrum to better satisfy public safety's needs for broadband services. That, like other similar proposals, warrants consideration.

¹² *First Report and Order* at ¶ 20; *Second Report and Order* at ¶ 7.

¹³ 47 U.S.C. 303(y)

¹⁴ 47 U.S.C. 337(d)(4). The statute requires the Commission to establish rules ensuring that public safety licensees in the Upper 700 MHz band are not subject to harmful interference from television broadcast operations. However, the Conference Report pertaining to that section states that the Commission should ensure 700 MHz public safety licensees "continue to operate free of interference from any new commercial licensees." H.R. Conf. Rep. No. 105-217, 105th Cong., 1st Sess., at 580 (1997).

Consistent with these statutory obligations, the Commission undertook a thorough interference analysis and determined that there was a significant potential for interference between commercial and public safety services operating in the Upper 700 MHz band. While it established flexible service rules for the vast majority of the commercial spectrum, it also established strict out-of-band emission limits to prevent interference. Moreover, it designated a portion of the commercial spectrum as Guard Bands to separate public safety spectrum from “flexible use” commercial spectrum, and imposed strict service, operational and technical rules on operations within the Guard Band spectrum.

The *NPRM* asks whether the Guard Band rules can be modified to allow greater flexibility while maintaining adequate protection for public safety operations. For example, it seeks comment on the efficacy of eliminating the current prohibition on deploying cellular architectures in the Guard Band spectrum and relaxing the current out-of-band emission restrictions – rules designed to protect public safety from harmful interference. The *NPRM* also seeks comment on proposals to make use of the Guard Band spectrum that the Commission reclaimed from Nextel as part of its plan to reconfigure the 800 MHz band.

The current record does not support substantial changes to the Guard Band rules. If the public safety spectrum is used in accordance with existing plans, concerns about potential interference and the need for protective measures continue to be valid. In adopting the Guard Bands, the Commission noted the potential for “low-site” cellular systems to interfere with “high-site” public safety systems and established the Guard Bands, with their attendant restrictions, to ensure a buffer between these two disparate systems. Allowing the Guard Bands to be used in the same flexible manner as other 700 MHz commercial spectrum would effectively eliminate that buffer and strip away the very protections that the Commission has put

in place. Unless public safety's planned uses of the band have substantially changed, and that the risk of potential interference from commercial systems operating in adjacent spectrum no longer exists, proposals to eliminate the cellular prohibition and/or substantially change the Guard Band emission limits are premature and should be rejected.

IV. CHANGES TO THE MANNER IN WHICH PUBLIC SAFETY SPECTRUM IS USED COULD YIELD BENEFITS TO PUBLIC SAFETY LICENSEES AND INCREASE OVERALL SPECTRAL EFFICIENCY.

The Commission has initiated a proceeding to reassess the manner in which the 24 MHz of spectrum allocated to public safety in the Upper 700 MHz band is used.¹⁵ Currently, 12 MHz has been designated for narrowband use and 12 MHz has been designated for wideband use. The Commission seeks comment on whether certain channels within the public safety spectrum should be modified to accommodate broadband communications, and if so, how. The Commission tentatively concluded that it should not modify the portion of the spectrum currently designated for narrowband systems.

Recognizing the Commission's concerns about the potential problems associated with modifying the narrowband spectrum, several commenters noted that a broader reconfiguration of the band which includes the narrowband segment would yield significant benefits to public safety licensees and make more spectrum available for broadband uses.¹⁶ Specifically, it was proposed that narrowband and broadband uses be consolidated into opposite ends of the public

¹⁵ *In the Matter of the Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010*, WT Docket No. 96-86, Eighth Notice of Proposed Rulemaking, FCC 06-34 ("Public Safety Broadband Proceeding"), rel. Mar. 21, 2006.

¹⁶ Comments of Lucent Technologies, Inc., filed in response to *Public Safety Broadband Proceeding*, filed Jun. 6, 2006; see also Comments of Access Spectrum, L.L.C., Columbia Capital III, LLC, Intel Corporation, and Pegasus Communications Corporation, filed in response to *Public Safety Broadband Proceeding*, filed Jun. 6, 2006; see also The State of Hawaii Department of Accounting and General Services, *Public Safety Broadband Proceeding*, filed Jun. 6, 2006; see also Region 24 700 MHz Regional Planning Committee, *Public Safety Broadband Proceeding*, filed Jun. 6, 2006.

safety spectrum. Such a configuration would reduce the amount of internal guard band spectrum required to separate public safety's narrowband and broadband systems, and place the broadband systems in spectrum that is adjacent to the commercial bands.¹⁷ As a result, public safety would be able to make more efficient use of its allotted spectrum.

We concur with the majority of commenters in the *Public Safety Broadband Proceeding* that there would be benefits in modifying the rules to accommodate broadband systems. The communications needs of first responders and the state-of-the-art in wireless technology have changed since the Commission established its current public safety band plan. Public safety should have access to the latest in communications technology, and the Commission's rules should be modified to ensure that those technologies can be implemented in the public safety band in the most effective and efficient manner possible. We are encouraged by recent filings made by public safety and industry representatives that indicate the challenges associated with such a reconfiguration may not be insurmountable.¹⁸

The manner in which the public safety spectrum is used could certainly impact the use of the Guard Band spectrum. For example, if the 24 MHz of public safety spectrum in the 700 MHz band is reconfigured in a manner that places broadband public safety systems next to commercial systems, the risk of harmful interference may be reduced, and some modifications to the Guard Band spectrum might be warranted. However, the Commission should not put the cart before the horse. It must first make a determination as to whether there are public interest benefits associated with reconfiguring the public safety spectrum, and if there are, how such a

¹⁷ In this context, the "guard bands" are internal to public safety's spectrum allocation, and are distinctly different from the commercial Guard Band licenses that are the subject of the instant proceeding.

¹⁸ See Ex Parte Letter from Wanda McCarley, APCO, Harlin McEwen, IACP, and Alan Caldwell, IAFC, filed in response to *Public Safety Broadband Proceeding*, filed Jul. 31, 2006; see also Ex Parte Letter from Steve Sharkey, Motorola, filed in response to *Public Safety Broadband Proceeding*, 700 MHz Further NPRM, and Guard Band NPRM, filed Oct. 4, 2006.

reconfiguration would affect the deployment of broadband public safety systems in the 700 MHz band. Then, it can determine whether changed circumstances in the use of the public safety spectrum warrant changes to the Guard Band rules.

It is important to note that reconfiguration of the public safety spectrum in the manner described above does not, in and of itself, justify substantial modifications to the Guard Band rules. Unless broadband public safety systems are deployed in a manner that is compatible with commercial networks, e.g., in accordance with a cellular architecture, the potential for interference between commercial and public safety systems continues to exist. Thus, it would be premature for the Commission to modify its Guard Band rules without first fully understanding how broadband public safety systems will be deployed. If public safety licensees decide to implement emergency communications systems based on a cellular architecture, and the Commission's rules are changed to reflect that fact, then the current prohibition on deploying cellular systems in the Guard Bands can be lifted.

V. CONCLUSION

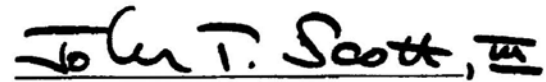
Verizon Wireless appreciates the Commission's efforts to promote greater flexibility in the use of spectrum wherever possible. However, in the case of the Guard Band spectrum, it would be premature to modify the current rules at this time given the potential for significant interference to public safety licensees operating in the 700 MHz band. The technical reasons why the Commission found Guard Bands "necessary" in adopting those rules have not changed. The Commission must first determine whether and how it intends to modify the public safety spectrum, how the band will be used to accommodate both narrowband and broadband systems, and whether any new uses of the public safety spectrum would warrant changes to the Guard Band rules.

The Commission should not make any changes to the rules that would jeopardize its ability to meet its statutory obligations to auction the 700 MHz spectrum. And, it should not delay action in the *700 MHz Further NPRM* and the subsequent auction that will follow that proceeding while it considers action on the *Guard Band NPRM*.

Respectfully submitted,

VERIZON WIRELESS

By:

A handwritten signature in black ink that reads "John T. Scott, III". The signature is written in a cursive style with a horizontal line underneath the name.

John T. Scott, III
Vice President and Deputy
General Counsel – Regulatory Law

Donald C. Brittingham
Director – Wireless / Spectrum Policy

Verizon Wireless
1300 I Street, N.W.
Suite 400 West
Washington, D.C. 20005
(202) 589-3740

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